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Schouhamer Immink

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[54] RECORD CARRIER CONTAINING A SIGNAL HAVING A SEQUENCE OF SUCCESSIVE INFORMATION SIGNAL PORTIONS

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Related U.S. Application Data

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[51] **Int. Cl.**[6] **H03M 7/00**

[52] **U.S. Cl.** **341/59**; 341/95

[58] **Field of Search** 341/58, 59, 95, 341/106

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[57] **ABSTRACT**

A series of m-bit information words is converted to a modulated signal. For each information word from the series, an n-bit code word is delivered. The delivered code words are converted to the modulated signal. The code words are distributed over at least one group of a first type and at least one group of a second type. When a code word belonging to a group of the first type is delivered, its group establishes a coding state of a first type. When a code word belonging to a group of the second type is delivered, a coding state of a second type is established which is determined by the information word which is to be converted to the delivered code word. When one of the code words is assigned to the received information word, this code word is selected from a set of code words which depends on the coding state established. The sets of code words belonging to the coding states of the second type are disjunct. In this coding method, the number of unique bit combinations that may be established by the code words in the series are enlarged.

16 Claims, 20 Drawing Sheets